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APQ-56 Improvement Program

Egure FL3011
Reputo
Ran

May 1, 1957

SYSTEM		•											
ALL	1.18	Resolution Problem -	STAT										
		No change since last report.											
XH-2 XH-3	2.17	Recorder Cooling -	STAT										
NAVÝ		Drafting is working on bringing XH-2 and XH-3 recorder drawings up to date to show the cooling modification. Still waiting for parts from Model Shop to complete modification of remaining XH-2 recorders and camerasestimated date of this modification is 5/10.											
XH-2	4.12	R. F. High Voltage Power Supply -	STAT										
VY		One R. F. unit has been enclosed with Revolite sheet and filled with silicon fluid. Unfortunately the circuit exhibited signs of malfund before a complete temperature us output voltage curve data could be however, before cutting into the mold of Revolite to attempt to reparault the unit was subjected to thermo cycling tests to obtain an inchow the bonding cement and Revolite mold hold up under extreme temper conditions. Thermo cycling tests have not been completed as yet.	ctioning taken; air the dea as to										
All	6.18	P. E. Cell -	STAT										
		Three P. E. Cell Test Sets are being built and tested to establish is sitivity of P. E. Cells. All sets have been built. During calibrat procedure it was found that the internal voltage regulator had to be external due to heating in the test set. These external regulators been completed and the test sets are again in the process of being of the correlation of any one set with the same bulb over 45 minutes of time after warm-up is approximately ± 5%. Correlation between sets one bulb is now being performed.	cion clocated have calibrated. running										
All	12.17	Pulse Cable Connectors -	STAT										
	•	No change since last report.											
Time Shared	13.18	AGC - Friedmann,	STAT										
		Design a new AGC that will be less susceptible to radio-frequency interference and to stray audio pick-up.											
		Drafting is working on the detailing of the new AGC chassis and acce The Model Shop is building several cables using the new Microdot con											

Time Shared	17.14	Wide Band Receiver - S	TAT
Dilated		No Change since last report.	
All	19.14	Receiver Design -	TAT
		Performance data on the pre-amplifier, post-amplifier and video-amplifier has been obtained for each unit operating individually. Regeneration has been observed in the non-linear post-amplifier. The actual operation of the post-amplifier is not being affected but the stability of this unit is marginal.	
		These three units will now be cascaded and their operation observed under various signal conditions.	
All	20.11	Pulse Width -	TAT
		As originally envisigned, this study had as its objective the generation of an R. F. envelope with a square shape and time width of 0.1 µs max. Utilizing the hard tube modulator driving the 6799 magnetron, it has been determined that a pulse with a duration less than 0.1 µs can be generated. Since the driving pulse rise time (.06 µs min.) is in the same order of magnitude of the required pulse width (.1 µs max.), it is impossible to generate square R.F. envelope.	
		The information obtained in the hard tube study will now be applied to the breadboarding of a practical line type modulator. It is estimated that tangible results can be expected in one week.	
All	21.12	Pulse Width (Quick Fix)	TAT
		No change since last report.	
All	22.9	Resolution Test Set -	TAT
		A means of measuring recorder resolution is needed in the field. Eight Resolution Test Sets are being built by S. R. for the Time Shared System, using commercial type construction. A change in circuit design was completed last week. Construction is progressing. Handbook has not yet been started.	
Time Shared	24.4	Deflection Driver Drift - STA	4T
XH-3 NAVY		Three film runs of approximately 30 minutes duration were made in addition recent film for system transfer characteristics, all at reduced filament voltage for 6AU6 tubes. One of the three shows a very slight closing of the traces after an opening after approximately twenty minutes of "on" time. On the transfer characteristic film a slight closing (after an opening) appear after approximately 40 minutes of "on" time. Both of these were made with wire-wound feed back resistors installed. A repeat of this same test did not show a repeat of the closing.	ie On
		A shaper of filement malters from 6 C to C malter on the MYOCO systems Andreas	

A change of filament voltage from 6.5 to 5 volts on the LX250 output tubes shows no change of trace position. Checks of filament voltage variation on the 6AU6 tubes under normal operation shows no change of voltage. Apparently much longer film runs are necessary to isolate the source or sources of trouble.

		REMARKS			NISR 23774 - Prog. 5/8		Will try one Power Supply in	Releasing of all P.S.							Waiting parts from Production Prom 5/15		Total to the state of the state	Prom. 5/17	17-17		From. 5/17	-		
8	XH-1	T-17V	1-+			NA.	NA.						S/M S/M S/M S/M S/M S/M S/M S/M	01/5 01/5 01/5 01/5 01/5 01/5 01/5 01/5					0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	5/8 5/8 5/8 5/8 5/8 8/8 8/8 8/8 8/8				1
50) 164 500	XH-2 XH-3	10 20 10 10 10	N/N N/N I I I New	N/S W/S W/S W/S	T S	3/27 **/**	4,11 4,73 4,44 11,14 11,		A/N/A	A A S. I stp	4/17 I	R 1	H	4/5 4/9 4/29 4/18	MATE I S S I	4/12 4/12 4/10		5/21 5/21 5/21 4/18 111	3/29 3/29 N/A	1/22 1/22 1/30 1/3 1/10 DIF	5/23 5/234/29 4/18			
63		05 06 07 08 09 10 11 12 13 14 15	1	2 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	SDIFFERNT DESIGN	1/4 1/1 1/1 1/1 8 8 8 8	W/S W/S W/S 5/8 5/105/14 5/14	8 8 8 8 8 8 8 8 4/5 4/5 4/5 4/5 4/5 14/5 14/5 14/5 14/5	A A A A A A A A A A A A A A A A A A A	S S S S S S S S S S S S S S S S S S S	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3/25/3/25/3/25/3/25/3/25/3/25/3/25/3/25	(S)	N/A N/A N/A W/S N/A	Engra S S S W/S W/S W/S W/S W/S W/S	51/h 51/h 51/h 72/h +2/h +2/h +2/h +2/h +2/h +2/h +2/h +	Figs. Pigs. W/S W/S W/S W/S W/S W/S W/S W/S W/S Figs. 5/21 5/21 5/21 5/21 5/21 5/21 5/21 5/21		A A A A A A A A A A A A A A A A A A A	Singr W/S W/S W/S W/S W/S W/S W/S W/S W/S BIP				
A - APPLY APPLICABLE N/A - NON APPLICABLE N/Y - WATTON SHIPPING N/	INSTALLED	KIT NO DESCRIPTION 01	1 Recorder Cooler 4/	2 Camera Cooling 1/3/1	3 Camera Servo Motors 3/2	μ Focus & Alignment S Hixture 4/μ	Recorder 10 KV W/S Power Supply 5/6	6 Protection for 28 v. 4/5	Focus Alignment Fixture Provide for Rear Antenna 7 Feed	8 Synchro Damage 4/5	Synchronizer - Replace S Clutch in Alt. Serva. 5/1			12 Adjust Angle of Pod N/A	ep cuit		Amp.	16 Name Plates Replace Temporary N/A	Cooling Fins 17 Maggie & Klystron	18 (Overload at Turn-On) Engri	19 Rectifier R.F. Head			